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Perspective Lines for the Vegetable Marrow (*Cucurbita pepo* L. convar. *giromontia* Alef.) Created at ICDLF Vidra

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Abstract. In order to gather as many characteristics as possible in the genotype of the new cultivars, as per the set improvement aims (earliness, exterior colour of the fruit, absence of thorns, main stem as short as possible and a number of fruits on plant as big as possible, reduced degree of ramification, fruits of cylindrical form as long as possible) the germoplasma collection existing at ICDLF Vidra was used. As a result of the improvement activity performed at ICDLF Vidra, a series of vegetable marrow lines were created, out of which two L 102 and L 285 were clearly superior. L102 – is a semi-early cultivar, obtained by genealogical selection applied in a hybrid population. L 285 – is a semi-early cultivar extracted from a hybrid population with orange colour fruit.

Keywords: improvement, vegetable marrow, line, germoplasma

Introduction. The vegetables' improvement is a permanent process where the impro ver exploits the genetic variability and selects plants with combinations and traits meeting the consumers' present and perspective requirements (Poncu *et al.,* 1988)

Knowing the genetic basis of characteristics and traits is essential for achieving the aims, because this is the only way the initial material can be judiciously chosen and we can establish the ways and methods for creating the adequate types and hybrids for production as soon as possible (Neagu, 1975)

The improver must permanently know the changes occurred in the growing technology and in the consumers' requirements, so that it may permanently provide the best genotypes.

Aims and objectives. The paper aims at presenting the characteristics of two lines of vegetable marrow created at ICDLF Vidra, as a result of the research activity carried out during 2004-2010.

Materials and methods. In order to gather as many characteristics as possible in the genotype of the new cultivars, as per the set improvement aims (earliness, exterior colour of the fruit, absence of thorns, main stem as short as possible and a number of fruits on plant as big as possible, reduced degree of ramification, fruits of cylindrical form as long as possible) the germoplasma collection existing at ICDLF Vidra was used.

The adequate genitors were selected from the collection and were introduced in the hybridisation programme.

In the segregating populations the genealogical selection was applied.

Results and Discussion. As a result of the improvement activity performed at ICDLF Vidra, a series of vegetable marrow lines were created, out of which two L 102 and L 285 were clearly superior.

L102 – is a semi-early cultivar, obtained by genealogical selection applied in a hybrid population. The plant' growing type is semi-crawling, without ramification tendency, the length of the main stem reaches 93 ± 4 cm. The leaf is strongly sected, of green colour, slightly marmorated along the ribs.

The fruit is shiny dark green at consumption maturity and dead blackish green at physiological maturity, of cylindrical form with the diameter of 3.25±0.2cm and the length of 17.5±2 cm at an average weight of the fruit of 210g. Form index is 5.38. It averagely forms 15-16 fruits/plant and a production of 3.1 kg/plant. It is tolerant to *Sphaerotheca fuliginaea and Pseudoperonospora cubensis***.**

L 285 – is a semi-early cultivar extracted from a hybrid population with orange colour fruit.

The plants have the semi-crawling growing type without ramification tendency. The length of the main stem reaches 101.9±12.97cm. The leaf is big and slightly sected. The fruit is of orange colour (tangerine), cylindrical, long, slightly costate towards the peduncle. The fruit's diameter is of 3.29 ± 0.23 cm and the length of 14.4 ± 0.27 cm at a weight of the fruit of 170 ± 8.64. The form index is 4.37.

It is tolerant to *Sphaerotheca fuliginaea* and *Pseudoperonospora cubensis***.**

Conclusion. The created lines have plants with a short main stem and a big number of fruits on plant, resulting in obtaining big crops.

The absence of thorns and the reduced degree of ramification make the harvest work be much easier.

By such traits as precocity, productivity, quality, exterior colour of the fruit, resistance to pathogenic agents etc. the two lines will contribute to the diversification of the vegetable marrow assortment.

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